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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/369,386	08/06/1999	MOTOTAKA TANEYA	914-101	6727

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EXAMINER

PIZIALI, JEFFREY J

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 03/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/369,386

Applicant(s)

TANEYA ET AL. 

Examiner

Jeff Piziali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 6, 2002 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-10 and 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang et al. (US 5,294,869) in view of Rebesch et al. (US 5,781,167).

Regarding claim 1, Tang discloses an organic EL emission device [Fig. 1; 100] including first [Fig. 1; R1-R5] and second [Fig. 1; C1-C5] electrode layers, at least one of which is transparent; an organic light emission layer [Fig. 1; EL] for EL emission sandwiched between the first and second electrode layers for together supplying electric fields to the organic light emission layer, the organic light emission layer being in direct contact with at least one of the electrode layers, wherein at least the first electrode layer includes a plurality of electrodes

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arranged with spatial periodicity, and the plurality of electrodes included in the first electrode layer together with adjacent regions in the second electrode layer including at least one electrode form a plurality of electrode pair regions arranged with spatial periodicity, a method comprising driving the organic EL emission device in a manner such that the prescribed electric fields are substantially different from each other in at least either strength or polarity as applied with variation in a time-dependent manner to electrode pair regions adjacent to each other among the plurality of electrode pair regions (see Column 4, Line 13 - Column 5, Line 56). Tang does not expressly disclose the prescribed electric fields are substantially always different from each other.

However, Rebeschgi discloses an EL emission device [Fig. 2; 200] including first [Fig. 2; 216] and second [Fig. 2; 212] electrode layers, at least one of which is transparent; a light emission layer [Fig. 2; 214] for EL emission sandwiched between the first and second electrode layers for together supplying electric fields to the light emission layer, wherein at least the first electrode layer includes a plurality of electrodes arranged with spatial periodicity, and the plurality of electrodes included in the first electrode layer together with adjacent regions in the second electrode layer including at least one electrode form a plurality of electrode pair regions arranged with spatial periodicity (see Column 3, Lines 40-64), a method comprising driving the EL emission device in a manner such that the prescribed electric fields are substantially always different from each other in at least either strength or polarity as applied with variation in a time-dependent manner to electrode pair regions adjacent to each other among the plurality of electrode pair regions (see Figs. 6A-6F; Column 4, Line 17 - Column 5, Line 3).

Tang and Rebeschi are analogous art because they are from the shared field of EL display devices. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Rebeschi's alternating polarity driving technique with Tang's display device, so as to prevent display resolution degradation.

Regarding claim 2, Rebeschi discloses the electric fields with at least different strengths or polarity to be applied to electrode pair regions adjacent to each other among the plurality of electrode pair regions are varied with a constant time periodicity (see Figs. 6A-6F; Column 4, Line 17 - Column 5, Line 3).

Regarding claim 3, Rebeschi discloses alternating voltages with opposite polarities are applied to electrode pair regions adjacent to each other among the plurality of electrode pair regions (see Figs. 6A-6B; Column 4, Lines 43-50).

Regarding claim 4, Tang discloses at least the first electrode layer includes a plurality of electrodes in one of a dot-like form and a stripe-like form [Fig. 1; R1-R5] (see Column 4, Line 13 - Column 5, Line 56).

Regarding claim 5, Tang discloses the second electrode layer includes a plurality of stripe-like electrodes [Fig. 1; C1-C5] positioned in parallel to the plurality of stripe-like electrodes [Fig. 1; R1-R5] included in the first electrode layer (see Column 4, Line 13 - Column 5, Line 56).

Regarding claim 6, Tang discloses the second electrode layer includes a plurality of stripe-like electrodes [Fig. 1; C1-C5] arranged to intersect the plurality of stripe-like electrodes [Fig. 1; R1-R5] included in the first electrode layer (see Column 4, Line 13 - Column 5, Line 56).

Regarding claim 7, Rebeschì discloses a first group of electrodes [Fig. 3; 312] including every other electrode are electrically connected to each other, and a second group of electrodes [Fig. 3; 332] that remain beside the first group of electrodes are electrically connected to each other in the first electrode layer (see Column 3, Line 65 - Column 4, Line 15).

Regarding claims 8 and 9, Rebeschì discloses a first group of electrodes [Fig. 3; 322] including every other electrode are electrically connected to each other, and a second group of electrodes [Fig. 3; 342] that remain beside the first group of electrodes are electrically connected to each other in the second electrode layer (see Column 3, Line 65 - Column 4, Line 15).

Regarding claim 10, this claim is rejected under the reasoning applied in the above rejection of claim 1, furthermore, Rebeschì discloses a voltage application means [Fig. 2; 217] for applying a voltage between an electrode included in the first electrode layer and an electrode included in the second electrode layer (see Column 3, Lines 56-64).

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Regarding claim 12, this claim is rejected under the reasoning applied in the above rejection of claim 1, furthermore, Rebeschi discloses allowing half or less than half of the total number of electrode pair regions to emit light at a time (see Figs. 6A-6B; Column 4, Line 17 - Column 5, Line 3).

Regarding claim 13, Rebeschi discloses the prescribed electric fields are substantially always different from each other in at least either strength or polarity for all adjacent electrode pair regions in the EL emission device (see Figs. 6A-6B; Column 4, Line 17 - Column 5, Line 3).

Regarding claim 14, this claim is rejected under the reasoning applied in the above rejection of claims 1 and 3, furthermore, Rebeschi discloses driving the organic EL emission device in a manner such that the prescribed electric fields at a given point in time are substantially always different from each other in polarity as applied to electrode pair regions adjacent to each other (see Figs. 6A-6B; Column 4, Lines 43-50).

Regarding claims 15-18, Tang discloses no insulation layer is provided between either of the electrode layers [Fig. 1; R1-R5 & C1-C5] and the light emission layer [Fig. 1; EL] (see Column 4, Line 13 - Column 5, Line 56).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

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pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 13 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The claim's subject matter of "the prescribed electric fields [being] substantially always different from each other in at least either strength or polarity for all adjacent electrode pair regions in the EL emission device" is not found in the present specification.

Response to Arguments

6. Applicant's arguments with respect to claims 1-10 and 12-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Forrest et al. (US 5,757,139) and Kuribayashi et al. (US 6,121,994) are cited to further evidence the state of art pertaining to organic EL emission devices.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (703) 305-8382. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703) 305-4938. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



J.P.

March 5, 2003



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SUPERVISORY PATENT EXAMINER
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